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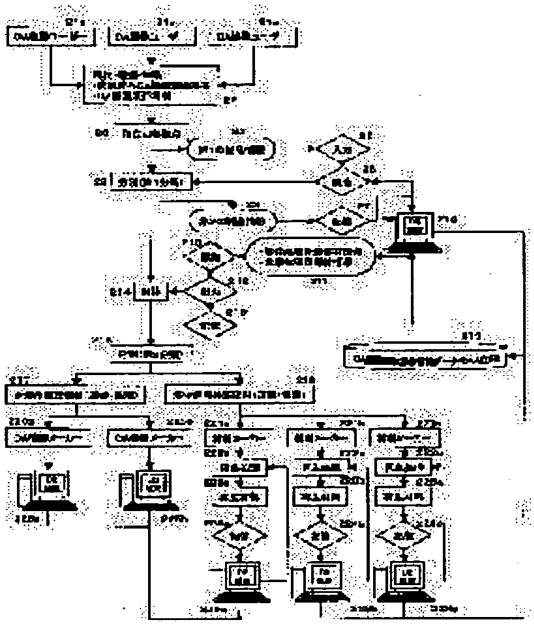
(54) RECYCLING METHOD AND DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To efficiently recycle an apparatus at a low cost and to improve a recycling ratio of the apparatus.

SOLUTION: This recycling device has an inputting means for reading a first product information attached to the apparatus, a storing means for storing the apparatus checking and disassembling information data base of the information for checking, disassembling and separating the apparatus corresponding to the first product information attached to the apparatus, and a checking means for checking the apparatus corresponding to the first product information of the apparatus obtained by the inputting means, and the apparatus collecting and disassembling information data base.



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[JP,2002-197147,A]
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CLAIMS

[Claim(s)]
[Claim 1] It has the following and is characterized by share-izing the aforementioned device recovery demolition information database through a network between the aforementioned specification recovery base, the aforementioned material maker, and the aforementioned equipment manufacturer. The process which carries the aforementioned device which is the recycling method which used devices are collected and recycles the parts and material of the aforementioned device, and was generated in the (a) appointed area at a specification recovery base, and is accumulated, (b) An input means to read the 1st product information that the aforementioned specification recovery base is added to the aforementioned device, product information on the above 1st added to the aforementioned device, and collating of the corresponding device concerned, It has a storage means to memorize the device recovery demolition information database of the information for dissolving and classifying. The process which collates the device concerned corresponding to the product information on the above 1st of the aforementioned device and the aforementioned device recovery demolition information database which were obtained with the aforementioned input means at the aforementioned specification recovery base, (c) Based on collating with the product information on the above 1st of the aforementioned device, and the aforementioned device recovery demolition information database, the device concerned is classified to two or more 1st classifications. The process which memorizes the judgment information on the device concerned in the aforementioned device recovery demolition information database as 2nd product information, Information is recognized. (d) -- each aforementioned device which classified the aforementioned specification recovery base to two or more 1st classifications of the above -- the product information on the above 1st, or the aforementioned device recovery demolition information database -- being based -- demolition processing sheathing of the device concerned -- a member -- information and processing in which it does not dissolve -- a member -- an output means to display the aforementioned recognition result -- having -- the aforementioned demolition processing sheathing -- a member -- information and the aforementioned processing in which it does not dissolve -- a member -- with the process which memorizes information in the aforementioned device recovery demolition information database (e) The process which disassembles the device concerned based on the result shown by the aforementioned output means to the aforementioned demolition processing sheathing member and the aforementioned processing [in which it does not dissolve] member, and classifies the aforementioned demolition processing sheathing member to two or more 2nd classifications, (f) -- each aforementioned demolition processing sheathing classified to two or more 2nd classifications of the above -- a member and the aforementioned processing in which it does not dissolve -- a member The process which carries the aforementioned demolition processing sheathing member to each material maker, carries the aforementioned processing [in which it does not dissolve] member to each aforementioned equipment manufacturer, and is accumulated (g) The process which processes the accumulated aforementioned demolition processing sheathing member into a rework by the art based on the aforementioned device recovery demolition information database, and memorizes the information on the aforementioned rework in the aforementioned device recovery demolition information database
[Claim 2] The recycling method according to claim 1 characterized by allotting the information record means to the aforementioned device.
[Claim 3] It is the recycling method according to claim 1 or 2 of carrying the aforementioned device generated in the aforementioned appointed area to the aforementioned specification recovery base, and carrying out having at least one relay ground between the aforementioned appointed area and the aforementioned specification recovery base, and the aforementioned relay ground being further connected with the aforementioned device recovery demolition information database through a network as the feature in the accumulated process.
[Claim 4] The aforementioned device recovery demolition information database is connected with the

device vendor through the network. The aforementioned device vendor collects the used devices currently installed in the sale place at the time of a new device sale. The aforementioned used device collected from the information acquired from the aforementioned device recovery demolition information database is carried on the aforementioned specification recovery base or a relay background. The recycling method according to claim 1 to 3 characterized by being accumulated, or carrying and piling up the specified aforementioned specification recovery base or relay ground in the aforementioned appointed area where the aforementioned sale place belongs.

[Claim 5] The art of a member is memorized. the aforementioned device recovery demolition information database -- the aforementioned demolition processing sheathing -- At least And the maker name of the aforementioned device, the name of a product, the form of a product, the date of manufacture, a part number and demolition processing sheathing of a product -- a member -- information and processing in which it does not dissolve -- a member -- information and the aforementioned demolition processing sheathing -- the quality of the material of a member -- the aforementioned demolition processing sheathing -- the material maker of a member, and the aforementioned demolition processing sheathing -- a member -- a name and the aforementioned demolition processing sheathing -- a member -- the recycling method according to claim 1 to 4 characterized by memorizing and constituting one information in a number

[Claim 6] the product information on the above 1st -- at least -- the maker name of the aforementioned device, the name of a product, the form of a product, the date of manufacture, a part number, the demolition processing sheathing section information material of a product, and processing in which it does not dissolve -- a member -- the recycling method according to claim 1 to 5 characterized by consisting of one information in information

[Claim 7] The recycling method according to claim 1 to 6 characterized by choosing the classification method of the 1st classification of the above at least from one of the maker name of the aforementioned device, the name of a product, and the form of a product.

[Claim 8] The product information on the above 2nd is the recycling method according to claim 1 to 7 characterized by being chosen out of one of the maker name of the aforementioned device, the name of a product, and the form of a product at least.

[Claim 9] the aforementioned demolition processing sheathing -- a member -- information -- at least -- the aforementioned demolition processing sheathing -- the quality of the material of a member, a material maker, and the aforementioned demolition processing sheathing -- a member -- a name and the aforementioned demolition processing sheathing -- a member -- the recycling method according to claim 1 to 8 characterized by consisting of a number and one information in quantity

[Claim 10] The recycling method according to claim 1 to 9 characterized by choosing the classification method of the 2nd classification of the above from one of the quality of the material and material makers at least.

[Claim 11] When two or more aforementioned appointed area is formed, each aforementioned specification recovery base exists in two or more aforementioned appointed area. Each aforementioned device recovery demolition information database is connected through a network. The recycling method according to claim 1 to 10 characterized by share-izing each aforementioned device recovery demolition information database through a network between the aforementioned specification recovery base, the aforementioned material maker, and the aforementioned equipment manufacturer respectively.

[Claim 12] The aforementioned device recovery demolition information database is the recycling method according to claim 1 to 11 characterized by consisting of 2 databases with which the device demolition information database and the device recovery information database became independent.

[Claim 13] The aforementioned device is the recycling method according to claim 1 to 12 characterized by consisting of aforementioned device sheathing members which consist of the quality of the material of the specification for which it opted among two or more aforementioned equipment manufacturers.

[Claim 14] The recycling method according to claim 1 to 13 characterized by constituting the costs generated within the aforementioned process and performing accounting and collection of the aforementioned costs in the aforementioned device recovery demolition information database through the network where it comes to connect the aforementioned device recovery demolition information database.

[Claim 15] The process which is the method of collecting and recycling the used device made from two or more equipment manufacturers, collects the aforementioned devices generated in the (a) appointed area, carries the aforementioned device at a specification recovery base, and is accumulated, (b) Collating of an input means to read the product information by which the aforementioned specification recovery base is added to the aforementioned device, the aforementioned product information added to the aforementioned device, and the aforementioned corresponding device, It has an output means to display the recycling information database used as the information for dissolving and classifying. The process which collates the aforementioned device corresponding to the aforementioned product information on the aforementioned device and the aforementioned recycling information database which were obtained with the aforementioned input means at the aforementioned specification recovery base, and outputs the result, (c) Based on the collating result of the aforementioned product information on the aforementioned device and the aforementioned recycling information database which were outputted, the aforementioned device is classified to two or more 1st classifications. The process memorized in the aforementioned recycling information database by making the judgment information on the aforementioned device into the 1st judgment result, The recycling information and reuse information on a member and the case section are recognized. (d) -- the 1st demolition information which is in the aforementioned product information or the aforementioned recycling information database about each aforementioned device classified to two or more 1st classifications of the above -- being based -- sheathing of the aforementioned device -- a member, the case section, and the aforementioned sheathing -- A member and the aforementioned case section are disassembled. the process which outputs the result, and the result by which (e) output was carried out -- being based -- the aforementioned sheathing of the aforementioned device -- It classifies to two or more 2nd classifications containing one of members. the disassembled aforementioned device -- at least -- the member for the 1st recycling, and the 1st reuse object -- Furthermore, it sets to the process memorized in the aforementioned recycling information database by making the judgment information on the disassembled aforementioned device into the 2nd judgment result, and the 2nd classification of the above of (f) plurality. the aforementioned candidate for the 1st recycling -- a member -- and the aforementioned 1st reuse object -- a member -- the 2nd demolition information which is in the aforementioned product information or the aforementioned recycling information database about the member for un-[1st reuse / of the 1st recycling] of an except -- being based -- the aforementioned 1st reuse / of the 1st recycling / non-object -- a member a demolition art And the process which recognizes the recycling information and reuse information on solution soma material, and outputs the result, (g) Based on the outputted result, the aforementioned member for un-[1st reuse / of the 1st recycling] is disassembled. At least the disassembled aforementioned member for un-[1st reuse / of the 1st recycling] The member for the 2nd recycling, the 2nd reuse object -- the aforementioned 1st reuse [of the 1st recycling] non-object which classified to two or more 3rd classifications containing one of members, and was disassembled further -- with the process memorized in the aforementioned recycling information database by making the judgment information on a member into the 3rd judgment result In a member and the aforementioned member for the 2nd recycling (h) -- the aforementioned candidate for the 1st recycling contained in two or more 2nd classification of the above and two or more 3rd classifications of the above -- Carry each member for recycling to each material maker, and it is accumulated. The process which processes each accumulated aforementioned member for recycling into a rework by the art based on the aforementioned recycling information database, and memorizes the information on the obtained aforementioned rework in the aforementioned recycling information database, In a member and the aforementioned member for the 2nd reuse (i) -- the aforementioned 1st reuse object contained in two or more 2nd classification of the above and two or more 3rd classifications of the above -- Each member for reuse is inspected by the method based on the aforementioned recycling information database. The aforementioned inspection result is stored in the aforementioned recycling information database. further After the aforementioned inspection, Carry each member for reuse to each equipment manufacturer, and it is accumulated, and each accumulated member for reuse is processed and inspected by the method based on the aforementioned recycling information database. It has the process which obtains reproduction parts and a reproduction product and memorizes the information on obtained aforementioned reproduction parts and aforementioned reproduction product in the aforementioned recycling information database. The recycling method characterized by share-izing the aforementioned recycling information database through a network between the aforementioned specification recovery base, the aforementioned material maker, and the aforementioned equipment manufacturer.

[Claim 16] The recycling method according to claim 15 characterized by allotting the information record means to the aforementioned device.

[Claim 17] It is the recycling method according to claim 15 or 16 of carrying the aforementioned device generated in the aforementioned appointed area to the aforementioned specification recovery base, and carrying out the aforementioned appointed area having at least one relay ground between the recovery point of the aforementioned device, and the aforementioned specification recovery base, and the aforementioned relay ground being further connected with the aforementioned recycling information database through a network as the feature in the accumulated process.

[Claim 18] The aforementioned recycling information database is connected with the device vendor through the network. The aforementioned device vendor collects the used devices currently installed in

the sale place at the time of a new device sale. The aforementioned used device collected from the information acquired from the aforementioned recycling information database is carried on the aforementioned specification recovery base or the aforementioned relay background. The recycling method according to claim 15 to 17 characterized by being accumulated, or carrying and piling up the specified aforementioned specification recovery base or the aforementioned relay ground in the aforementioned appointed area where the aforementioned sale place belongs.
[Claim 19] the aforementioned candidate for the 2nd recycling in two or more 3rd classifications of the above -- a member and the aforementioned 2nd reuse object -- a member, in order to process the member for un-[2nd reuse / of the 2nd recycling] of an except Furthermore The spallation / trituration method of a member, and the recycling information and judgment information after spallation / trituration are recognized. (j) -- spallation / trituration judgment information which is in the aforementioned product information or the aforementioned recycling information database about the aforementioned member for un-[2nd reuse / of the 2nd recycling] -- being based -- the aforementioned 2nd reuse / of the 2nd recycling / non-object -- It is based on the process which outputs the result, and the result by which (k) output was carried out, and the aforementioned member for un-[2nd reuse / of the 2nd recycling] is crushed and ground. The aforementioned member for un-[2nd reuse / of the 2nd recycling] crushed and ground is classified to two or more members for the 3rd recycling. In the process memorized in the aforementioned recycling information database by making the judgment information on a member into the 4th judgment result, and the aforementioned member for the 3rd recycling of (l) plurality furthermore, the aforementioned 2nd reuse [of the 2nd recycling] non-object crushed and ground -- Carry each member for recycling to each material maker, and it is accumulated. Each accumulated aforementioned member for recycling is processed into a rework by the art based on the aforementioned recycling information database. The recycling method according to claim 15 to 18 characterized by having with the process which memorizes the information on the obtained aforementioned rework in the aforementioned recycling information database.
[Claim 20] The aforementioned specification recovery base has the input means for inputting the state of the demolition section of the aforementioned device and the aforementioned device into the aforementioned recycling information database. In the process chosen at least from one of the input process of the aforementioned product information, the judgment process of the 2nd classification of the above, the judgment process of the 3rd classification of the above, and the judgment processes of aforementioned spallation and trituration The recycling method according to claim 15 to 19 characterized by inputting the state of the demolition section of the aforementioned device and the aforementioned device into the aforementioned recycling information database.
[Claim 21] In the aforementioned recycling information database, at least The aforementioned product information, the aforementioned 1st demolition information, the aforementioned 2nd demolition information and the aforementioned candidate for the 1st recycling -- the art of a member, and the aforementioned candidate for the 2nd recycling -- the art of a member -- the aforementioned candidate for the 3rd recycling -- the art of a member, and the aforementioned 1st reuse object -- the art of a member -- the aforementioned 2nd reuse object -- the recycling method according to claim 15 to 20 characterized by memorizing or constituting the art, the aforementioned spallation / trituration judgment information, the aforementioned 1st judgment result, the aforementioned 2nd judgment result, the aforementioned 3rd judgment result, and the aforementioned 4th judgment result of a member
[Claim 22] The aforementioned product information is the recycling method according to claim 15 to 21 characterized by to memorize one information chosen from the date of manufacture of the name of the aforementioned equipment manufacturer, the name of the aforementioned device product, the form and the model of the aforementioned device product, and the aforementioned device, the aforementioned device part number, the use history information on the aforementioned device, the maintenance information on the aforementioned device, and the part information on the aforementioned device at least.
[Claim 23] The classification of the 1st classification of the above is the name of the aforementioned equipment manufacturer, the name of the aforementioned device product, and the recycling method according to claim 15 to 22 characterized by being the classification chosen from one of the form and the models of the aforementioned device product at least.
[Claim 24] The aforementioned 1st judgment result is the recycling method according to claim 15 to 23 characterized by being chosen out of one of the storage quantity of the name of the aforementioned equipment manufacturer, the name of the aforementioned device product, the form and the model of the aforementioned device product, and the aforementioned device at least.
[Claim 25] In the aforementioned device classified into the classification kind for reuse which the kind for reuse is specified to be the 1st classification of the above, and was specified by the aforementioned product information or the aforementioned recycling information database The aforementioned device is

processed and inspected by the aforementioned product information or the method based on the aforementioned recycling information database. The recycling method according to claim 15 to 24 characterized by using the aforementioned device as a reproduction product and reproduction parts, and memorizing the information on obtained aforementioned reproduction product and aforementioned reproduction parts in the aforementioned recycling information database.

[Claim 26] It has the recycling information and reuse information on a member and the aforementioned case section. the aforementioned 1st demolition information -- sheathing of the aforementioned device -- the demolition information on a member and the case section, and the aforementioned sheathing -- at least -- the aforementioned sheathing -- the quality of the material of a member and the aforementioned case section, and the aforementioned sheathing -- the name of the material maker of a member and the aforementioned case section -- the aforementioned sheathing -- the name of the equipment manufacturer of a member and the aforementioned case section, and the aforementioned sheathing -- the name of a member and the aforementioned case section, and the aforementioned sheathing -- a member and the member of the aforementioned case section -- the recycling method according to claim 15 to 25 characterized by being chosen out of one of numbers

[Claim 27] The recycling method according to claim 15 to 26 characterized by classifying the classification of the 2nd classification of the disassembled aforementioned device of the above into the aforementioned member for the 1st recycling, the aforementioned member for the 1st reuse, and the aforementioned member for un-[1st reuse / of the 1st recycling] at least.

[Claim 28] the aforementioned candidate for the 1st recycling -- the classification of a member -- at least -- each aforementioned sheathing -- the quality of the material of a member and the aforementioned case section, and each aforementioned sheathing -- the name of the material maker of a member and the aforementioned case section, and each aforementioned sheathing -- the name of a member and the aforementioned case section, and each aforementioned sheathing -- a member and the member of the aforementioned case section -- the recycling method according to claim 15 to 27 characterized by being chosen out of one of numbers

[Claim 29] the aforementioned 1st reuse object -- the classification of a member -- at least -- each aforementioned sheathing -- the quality of the material of a member and the aforementioned case section, and each aforementioned sheathing -- the name of the equipment manufacturer of a member and the aforementioned case section, and each aforementioned sheathing -- the name of a member and the aforementioned case section, and each aforementioned sheathing -- a member and the member of the aforementioned case section -- the recycling method according to claim 15 to 28 characterized by being chosen out of one of numbers

[Claim 30] the aforementioned 1st reuse [of the 1st recycling] non-object -- the classification of a member -- at least -- each aforementioned 1st reuse [of the 1st recycling] non-object -- the name of a member, and each aforementioned 1st reuse [of the 1st recycling] non-object -- the member of a member -- a number and each aforementioned 1st reuse [of the 1st recycling] non-object -- the recycling method according to claim 15 to 29 characterized by being chosen out of one of the names of the equipment manufacturer of a member

[Claim 31] The aforementioned 2nd judgment result is the recycling method according to claim 15 to 30 which consists of a result of the 2nd classification of the above, or its part, and is characterized by being chosen out of one of the storage quantity for every classification, and storage days at least.

[Claim 32] the aforementioned 2nd demolition information -- the aforementioned 1st reuse [of the 1st recycling] non-object -- with the demolition information on a member It has the reuse information on a member. the aforementioned candidate for the 2nd recycling -- the recycling information on a member, and the aforementioned 2nd reuse object -- at least -- the aforementioned candidate for the 2nd recycling -- the name of a member, and the aforementioned candidate for the 2nd recycling -- the quality of the material of a member -- the aforementioned candidate for the 2nd recycling -- the name of the material maker of a member, and the aforementioned candidate for the 2nd recycling -- the member of a member -- a number -- the aforementioned 2nd reuse object -- the name of a member, and the aforementioned 2nd reuse object -- the quality of the material of a member, and the aforementioned 2nd reuse object -- the name of the equipment manufacturer of a member, and the aforementioned 2nd reuse object -- the member of a member -- the recycling method according to claim 15 to 31 characterized by being chosen out of one of numbers

[Claim 33] The recycling method according to claim 15 to 32 characterized by classifying into the aforementioned member for the 2nd recycling, the aforementioned member for the 2nd reuse, and the aforementioned member for un-[2nd reuse / of the 2nd recycling] at least the classification of the 3rd classification of the aforementioned device of the above which disassembled the aforementioned member for un-/ 1st reuse / of the 1st recycling].

[Claim 34] the aforementioned candidate for the 2nd recycling -- the classification of a member -- at least -- each aforementioned candidate for the 2nd recycling -- the quality of the material of a member, and each aforementioned candidate for the 2nd recycling -- the name of the material maker of a member, and each aforementioned candidate for the 2nd recycling -- the name of a member, and each aforementioned candidate for the 2nd recycling -- the member of a member -- the recycling method according to claim 15 to 33 characterized by being chosen out of one of numbers

[Claim 35] the aforementioned 2nd reuse object -- the classification of a member -- at least -- each aforementioned 2nd reuse object -- the quality of the material of a member, and each aforementioned 2nd reuse object -- the name of the equipment manufacturer of a member, and each aforementioned 2nd reuse object -- the name of a member, and each aforementioned 2nd reuse object -- the member of a member -- the recycling method according to claim 15 to 34 characterized by being chosen out of one of numbers

[Claim 36] the aforementioned 2nd reuse [of the 2nd recycling] non-object -- the classification of a member -- at least -- each aforementioned 2nd reuse [of the 2nd recycling] non-object -- the name of a member, and each aforementioned 2nd reuse [of the 2nd recycling] non-object -- the member of a member -- a number and each aforementioned 2nd reuse [of the 2nd recycling] non-object -- the recycling method according to claim 15 to 35 characterized by being chosen out of one of the names of the equipment manufacturer of a member

[Claim 37] The aforementioned 3rd judgment result is the recycling method according to claim 15 to 36 which consists of a result of the 3rd classification of the above, or its part, and is characterized by being chosen out of one of the storage quantity for every classification, and storage days at least.

[Claim 38] the aforementioned spallation / trituration judgment information -- the aforementioned 2nd reuse [of the 2nd recycling] non-object -- with spallation / trituration information on a member the aforementioned candidate for the 3rd recycling -- the recycling information on a member -- having -- at least -- the aforementioned candidate for the 3rd recycling -- the name of a member -- the aforementioned candidate for the 3rd recycling -- the quality of the material of a member, and the aforementioned candidate for the 3rd recycling -- the name of the material maker of a member, and the aforementioned candidate for the 3rd recycling -- the member of a member -- the recycling method according to claim 15 to 37 characterized by being chosen out of one of numbers

[Claim 39] the aforementioned candidate for the 3rd recycling -- the classification of a member -- at least -- each aforementioned candidate for the 3rd recycling -- the quality of the material of a member, and each aforementioned candidate for the 3rd recycling -- the name of the material maker of a member, and each aforementioned candidate for the 3rd recycling -- the name of a member, and each aforementioned candidate for the 3rd recycling -- the member of a member -- the recycling method according to claim 15 to 38 characterized by being chosen out of one of numbers

[Claim 40] the aforementioned 4th judgment result -- the aforementioned candidate for the 3rd recycling -- the recycling method according to claim 15 to 39 which consists of a classification result of a member, or its part, and is characterized by being chosen out of one of the storage quantity for every classification, and storage days at least

[Claim 41] the aforementioned candidate for the 2nd recycling -- the various classifications of a member -- the aforementioned candidate for the 1st recycling -- the same aforementioned member for the 2nd recycling as the classification of a member -- setting -- the aforementioned candidate for the 1st recycling -- the recycling method according to claim 15 to 40 characterized by to deal with the same aforementioned member for the 2nd recycling as the classification of a member as the aforementioned member for the 1st recycling at the time of judgment of the 3rd classification of the above

[Claim 42] In the same aforementioned member for the 3rd recycling as the classification of a member the aforementioned candidate for the 3rd recycling -- the various classifications of a member -- the aforementioned candidate for the 1st recycling -- a member or the aforementioned candidate for the 2nd recycling -- the aforementioned candidate for the 1st recycling -- a member or the aforementioned candidate for the 2nd recycling -- the same aforementioned member for the 3rd recycling as the classification of a member -- the aforementioned candidate for the 3rd recycling -- the time of judgment of a member -- the aforementioned candidate for the 1st recycling -- as a member or the aforementioned member for the 2nd recycling The recycling method according to claim 15 to 41 characterized by dealing with it.

[Claim 43] the aforementioned 1st reuse object -- the inspection before a member and the aforementioned member for the 2nd reuse are carried by the aforementioned equipment manufacturer -- setting -- the aforementioned 1st reuse object with the aforementioned poor inspection result -- the recycling method according to claim 15 to 42 characterized by dealing with a member and the aforementioned member for the 2nd reuse as the aforementioned member for un-[2nd reuse / of the 2nd recycling]

[Claim 44] the aforementioned 1st reuse object -- a member and the aforementioned member for the 2nd reuse -- setting -- the aforementioned 1st reuse object -- the recycling method according to claim 15 to 43 characterized by omitting the inspection before a member and the aforementioned member for the 2nd reuse are carried by the aforementioned equipment manufacturer

[Claim 45] The recycling method according to claim 15 to 44 of carrying out each aforementioned specification recovery base existing, each aforementioned recycling information database being connected through a network into two or more aforementioned appointed area when two or more aforementioned appointed area is formed, and each aforementioned recycling information database being respectively share-ized through a network between the aforementioned specification recovery base, the aforementioned material maker, and the aforementioned equipment manufacturer as the feature.

[Claim 46] At least the aforementioned recycling information database The database of the aforementioned product information, The database of the aforementioned 1st demolition information, the database of the aforementioned 2nd demolition information, the aforementioned candidate for the 1st recycling -- the database of the art of a member, and the aforementioned candidate for the 2nd recycling -- the database of the art of a member -- the aforementioned candidate for the 3rd recycling -- the database of the art of a member, and the aforementioned 1st reuse object -- the database of the art of a member -- the aforementioned 2nd reuse object -- the database of the art of a member, and the database of the aforementioned crush / pulverization judgment information -- The database of the aforementioned 1st judgment result, the database of the aforementioned 2nd judgment result, The recycling method according to claim 15 to 45 characterized by consisting of independent 2 databases chosen from the database of the aforementioned 3rd judgment result, and the database of the aforementioned 4th judgment result.

[Claim 47] At least one member for recycling of the aforementioned device is the recycling method according to claim 15 to 46 characterized by being the quality of the material of the specification for which it opted among two or more aforementioned equipment manufacturers.

[Claim 48] The aforementioned recycling information database is the recycling method according to claim 15 to 47 characterized by being carried out within the aforementioned recycling information database by which the costs generated within the recycle system of the aforementioned device are memorized, constituted, calculated and programmed, and accounting and collection of the aforementioned costs are connected with the network.

[Claim 49] Recycling equipment characterized by providing the following. An input means to read the 1st product information added to the device A storage means to memorize the device recovery demolition information database of the product information on the above 1st added to the aforementioned device, and collating of the corresponding device concerned and the information for dissolving and classifying A collating means to collate the device concerned corresponding to the product information on the above 1st of the aforementioned device and the aforementioned device recovery demolition information database which were obtained with the aforementioned input means

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[The technical field to which invention belongs] the recovery method that this invention was used in the commercial scene and sheathing of a device -- they are efficient and a thing about the technology which can recycle the sheathing member of a device in a low cost about the recycling method of a member
[0002]
[Description of the Prior Art] With development of ED, many OA equipment, an automobile, home electronics, an electric electronic product, etc. circulate in a commercial scene, and these brought about fast economic development in the 20th century, and raised the life of human beings. However, the industry and the public welfare product which has brought us many enjoyment have given the big problem of a global environmental destruction in the second half of the 20th century. Moreover, while an exhaustion of a natural resource is cried for, mass consumption of these products that have given us affluence led to mass consumption of a natural resource, and the problem that shortage of an abandonment disposal plant, the toxic chemical substance further discharged from an abandonment processing article do bad influences, such as environmental destruction, also in these abandonment processings has generated it.
[0003] An example is taken in these problems, recycling processing of a disposal processing article is carried out and considered by various forms, and recycling of metals, such as iron, aluminum stainless steel, etc. of a disposal processing article, or plastic material has been performed by the self-governing body, the disposal processor, etc. now.
[0004] However, the member for these recycling is a mere part, and almost all products do not pass along a recycle system, but it is discarded directly, and the present condition is the reclamation in the gestalt as it is after the most grinding, and the reclamation after incineration processing. Therefore, in spite of promoting recycling, problems, such as soil pollution and water pollution which the toxic substance discharged by shortage of a reclamation lot and reclamation brings about, have occurred, and the air pollution problem by generating of the harmful gas which occurs at the time of incineration, for example, the dioxin which poses a problem in recent years, etc., the problem of the global warming by CO2 generating, etc. have occurred about incineration processing further.
[0005] In order to solve such a problem, in the economic structure of mass production method and mass consumption, construction of the economy-based-on-recycling social structure which used recycling as the nucleus is called for, and as for various makers, those recycling-ization is mentioned as a technical problem with recovery with a responsible used product.
[0006] In OA equipment represented by the copying machine etc. in it, it can say that the root from which the form of a lease rental in the selling gestalt collects many used OA equipment is ready as compared with other industrial fields.
[0007] However, as various gestalten and material are used by each OA-equipment maker and the present condition shows the composition of OA equipment to drawing 1 , the recycling has a large place depending on a single OA-equipment maker. Therefore, it is inefficient-like and the present condition is that the proper recycle system for environmental load reduction is not employed.
[0008] The recycle system which employed efficiently the feature of the selling form of OA equipment represented by the copying machine etc. under these circumstances is indicated by JP,10-216689,A. If it depends on this, from product property information, commercial-scene actual result information, part life-prediction information, workmanship instruction information, etc., collected OA equipment can do the decomposition work of efficient OA equipment, and the recovery work of parts by the operator, and supposes that recycling cost can be reduced.
[0009]
[Problem(s) to be Solved by the Invention] However, the kind of OA equipment currently used in the commercial scene is huge, and in the above-mentioned official report, an operator needs to do the work

which changes with each information, and cannot necessarily call it efficient work. Moreover, by the OA-equipment maker, since the goods designs differ, in the above-mentioned official report, it is an execute permission only from the model of limited OA equipment, and cannot be called the recycle system in consideration of OA equipment by two or more OA-equipment makers.

[0010] Moreover, the concrete recovery means of used OA equipment, recognition, and a judgment means are not indicated by the above-mentioned official report.

[0011] Moreover, that by which additives, such as a flame retarder, are specifically mixed in the quality of the material also for what has difficult recycling-izing at the collected used OA-equipment sheathing member exists, and unification-ization of the quality of the material etc. is needed. Moreover, about an above-mentioned flame retarder, especially an above-mentioned halogen system flame retarder, carcinogenic, teratogenicity, etc. are pointed out and the material development beyond the measure of a single OA-equipment maker and a material maker and its use are called for.

[0012] Then, in order to promote such recycling vigorously, construction of the recycle system for the whole industry beyond the measure of an OA-equipment maker simple substance, such as performing efficiently recovery and judgment, and standardization of the quality of the material further specified in the industry for used OA equipment from a commercial scene, is called for.

[0013] The purpose of this invention is being able to build a recycle system important for earth environment protection as the industry beyond the framework between companies, enabling recycling of an efficient device by the low cost, and improving the rate of recycling of a device further.

[0014]

[Means for Solving the Problem] The process which carries the aforementioned device which is the recycling method which according to one viewpoint of this invention used devices are collected and recycles the parts and material of the aforementioned device, and was generated in the (a) appointed area at a specification recovery base, and is accumulated, (b) An input means to read the 1st product information that the aforementioned specification recovery base is added to the aforementioned device, product information on the above 1st added to the aforementioned device, and collating of the corresponding device concerned, It has a storage means to memorize the device recovery demolition information database of the information for dissolving and classifying. The process which collates the device concerned corresponding to the product information on the above 1st of the aforementioned device and the aforementioned device recovery demolition information database which were obtained with the aforementioned input means at the aforementioned specification recovery base, (c) Based on collating with the product information on the above 1st of the aforementioned device, and the aforementioned device recovery demolition information database, the device concerned is classified to two or more 1st classifications. The process which memorizes the judgment information on the device concerned in the aforementioned device recovery demolition information database as 2nd product information, Information is recognized. (d) -- each aforementioned device which classified the aforementioned specification recovery base to two or more 1st classifications of the above -- the product information on the above 1st, or the aforementioned device recovery demolition information database -- being based -- demolition processing sheathing of the device concerned -- a member -- information and processing in which it does not dissolve -- a member -- an output means to display the aforementioned recognition result -- having -- the aforementioned demolition processing sheathing -- a member -- information and the aforementioned processing in which it does not dissolve -- a member -- with the process which memorizes information in the aforementioned device recovery demolition information database (e) The process which disassembles the device concerned based on the result shown by the aforementioned output means to the aforementioned demolition processing sheathing member and the aforementioned processing [in which it does not dissolve] member, and classifies the aforementioned demolition processing sheathing member to two or more 2nd classifications, In a member and the aforementioned processing [in which it does not dissolve] member (f) -- each aforementioned demolition processing sheathing classified to two or more 2nd classifications of the above -- The process which carries the aforementioned demolition processing sheathing member to each material maker, carries the aforementioned processing [in which it does not dissolve] member to each aforementioned equipment manufacturer, and is accumulated, (g) The accumulated aforementioned demolition processing sheathing member is processed into a rework by the art based on the aforementioned device recovery demolition information database. It has the process which memorizes the information on the aforementioned rework in the aforementioned device recovery demolition information database. The recycling method characterized by share-izing the aforementioned device recovery demolition information database through a network between the aforementioned specification recovery base,. the aforementioned material maker, and the aforementioned equipment manufacturer is offered.

[0015] The process which according to other viewpoints of this invention is the method of collecting and recycling the used device made from two or more equipment manufacturers, collects the aforementioned devices generated in the (a) appointed area, carries the aforementioned device at a specification recovery base, and is accumulated, (b) Collating of an input means to read the product information by which the aforementioned specification recovery base is added to the aforementioned device, the aforementioned product information added to the aforementioned device, and the aforementioned corresponding device, It has an output means to display the recycling information database used as the information for dissolving and classifying. The process which collates the aforementioned device corresponding to the aforementioned product information on the aforementioned device and the aforementioned recycling information database which were obtained with the aforementioned input means at the aforementioned specification recovery base, and outputs the result, (c) Based on the collating result of the aforementioned product information on the aforementioned device and the aforementioned recycling information database which were outputted, the aforementioned device is classified to two or more 1st classifications. The process memorized in the aforementioned recycling information database by making the judgment information on the aforementioned device into the 1st judgment result, The recycling information and reuse information on a member and the case section are recognized. (d) -- the 1st demolition information which is in the aforementioned product information or the aforementioned recycling information database about each aforementioned device classified to two or more 1st classifications of the above -- being based -- sheathing of the aforementioned device -- a member, the case section, and the aforementioned sheathing -- A member and the aforementioned case section are disassembled. the process which outputs the result, and the result by which (e) output was carried out -- being based -- the aforementioned sheathing of the aforementioned device -- It classifies to two or more 2nd classifications containing one of members. the disassembled aforementioned device -- at least -- the member for the 1st recycling, and the 1st reuse object -- Furthermore, it sets to the process memorized in the aforementioned recycling information database by making the judgment information on the disassembled aforementioned device into the 2nd judgment result, and the 2nd classification of the above of (f) plurality. the aforementioned candidate for the 1st recycling -- a member -- and the aforementioned 1st reuse object -- a member -- the 2nd demolition information which is in the aforementioned product information or the aforementioned recycling information database about the member for un-[1st reuse / of the 1st recycling] of an except -- being based -- the aforementioned 1st reuse / of the 1st recycling / non-object -- a member a demolition art And the process which recognizes the recycling information and reuse information on solution soma material, and outputs the result, (g) Based on the outputted result, the aforementioned member for un-[1st reuse / of the 1st recycling] is disassembled. At least the disassembled aforementioned member for un-[1st reuse / of the 1st recycling] The member for the 2nd recycling, the 2nd reuse object -- the aforementioned 1st reuse [of the 1st recycling] non-object which classified to two or more 3rd classifications containing one of members, and was disassembled further -- with the process memorized in the aforementioned recycling information database by making the judgment information on a member into the 3rd judgment result In a member and the aforementioned member for the 2nd recycling (h) -- the aforementioned candidate for the 1st recycling contained in two or more 2nd classification of the above and two or more 3rd classifications of the above -- Carry each member for recycling to each material maker, and it is accumulated. The process which processes each accumulated aforementioned member for recycling into a rework by the art based on the aforementioned recycling information database, and memorizes the information on the obtained aforementioned rework in the aforementioned recycling information database, In a member and the aforementioned member for the 2nd reuse (i) -- the aforementioned 1st reuse object contained in two or more 2nd classification of the above and two or more 3rd classifications of the above -- Each member for reuse is inspected by the method based on the aforementioned recycling information database. The aforementioned inspection result is stored in the aforementioned recycling information database. further After the aforementioned inspection, Carry each member for reuse to each equipment manufacturer, and it is accumulated, and each accumulated member for reuse is processed and inspected by the method based on the aforementioned recycling information database. It has the process which obtains reproduction parts and a reproduction product and memorizes the information on obtained aforementioned reproduction parts and aforementioned reproduction product in the aforementioned recycling information database. The recycling method characterized by share-izing the aforementioned recycling information database through a network between the aforementioned specification recovery base, the aforementioned material maker, and the aforementioned equipment manufacturer is offered.

[0016] An input means to read the 1st product information added to the device according to the viewpoint of further others of this invention, A storage means to memorize the device recovery demolition information database of the product information on the above 1st added to the aforementioned device, and collating of the corresponding device concerned and the information for dissolving and classifying, The recycling equipment characterized by having a collating means to collate the device concerned corresponding to the product information on the above 1st of the aforementioned device and the aforementioned device recovery demolition information database which were obtained with the aforementioned input means is offered.

[0017] According to this invention, a recycle system important for earth environment protection as the industry beyond the framework between companies can be built, recycling of an efficient device is enabled by the low cost, and the rate of recycling of a device can be improved further.

[0018]

[Embodiments of the Invention] the following and a drawing -- being based -- OA-equipment sheathing -- the operation gestalt about the recycle system of a member is explained

[0019] (1st operation gestalt) used OA equipment [in / the 1st operation gestalt of this invention / in drawing 1] -- OA-equipment sheathing -- it is a schematic diagram at the time of applying the recycle system of a member

[0020] 21a, 21b, and 21c of drawing 2 express two or more end users which use various OA equipment. Used OA equipment generated in this OA equipment is collected by the OA-equipment maker shown by 22 of drawing 2 , OA-equipment vendors, or those transport industry companies that specified, and is collected, carried and accumulated by the specification recovery base of 23 of drawing 2 .

[0021] At this time, it is desirable in the process of recovery, conveyance, and accumulation to prepare at least one relay ground, as shown in drawing 3 . By preparing such a relay ground, it becomes possible to perform efficient recovery, conveyance, and accumulation. When the distance between a discharge place which collects, carries and accumulates directly used OA equipment specifically discharged by the OA-equipment user of 32e of drawing 3 at the specification recovery base of 35, and a specification recovery base is near, It is preparing a relay ground which are 34a, 34b, 34c, and 34d, when a discharge place and a specification recovery base are far, although it is satisfactory for a recovery means. In the place which arrived at the relay ground at used OA equipment of a constant rate, it becomes possible on a specification recovery base and the next relay background to build planned recovery and conveyance / accumulation process by being carried and accumulated, and useless number of times of conveyance and distance can be reduced, and they are efficient recovery, conveyance, and integrated system. It is possible to reduce the cost of a recycle system furthermore.

[0022] Input (25) The process after piling up the specification recovery base 23 is a process which collate by carrying out (26) about the 1st product information 24 at the database terminal 215 of a specification recovery base which read the 1st product information 24 on used OA equipment accumulated on the specification recovery base 23, and was connected to the OA-equipment recovery demolition information database 219.

[0023] In this process, although the 1st product information 24 on used OA equipment can also be obtained from the name of the product indicated by used OA equipment, the form of a product, etc., by this method, the work by the human effort is required, the workability is also bad, and collating [made / the mistake / in according to a human mistake] may be performed. Therefore, it is desirable to allot an information record means beforehand to OA equipment at the time of OA-equipment manufacture. the 1st product information 24 which a bar code logbook, a magnetic bar code, etc. are mentioned as a concrete information record means, and is recorded on this information record means -- at least -- the maker name of OA equipment, the name of a product, the form of a product, the date of manufacture, a part number, and demolition processing sheathing of a product -- a member -- information and processing in which it does not dissolve -- a member -- it is desirable that one of the information is contained moreover, demolition processing sheathing required for the information on the OA-equipment recovery demolition information database 219 collated with this 1st product information 24 at demolition down stream processing mentioned later -- the art of a member -- at least -- the maker name of OA equipment -- the name of a product, the form of a product, the date of manufacture, a part number, and demolition processing sheathing of a product -- a member -- information and processing in which it does not dissolve -- a member -- information -- demolition processing sheathing -- the quality of the material of a member, and demolition processing sheathing -- the material maker of a member, and demolition processing sheathing -- a member -- a name and demolition processing sheathing -- a member -- it is required to memorize and constitute one information on a number

[0024] The 1st product information 24 can be read in information record meanses, such as a bar code, using information readers, such as an input means, for example, a bar code reader etc., by this, it can perform collating this information and the information on the OA-equipment recovery demolition information database 219 further in an instant, and more efficient collating work is attained.

[0025] The process after collating (26) classifies used OA equipment to two or more 1st classifications based on the 1st above-mentioned product information 24 and the collating result of the OA-equipment recovery demolition information database 219 (29). Moreover, it is the process which memorizes the information classified at this time (29) in the OA-equipment recovery demolition information database 219 as 2nd product information 28 through the database terminal 215 of a specification recovery base connected to the OA-equipment recovery demolition information database 219.

[0026] As for the 1st classification classified at this time, it is desirable to be chosen out of one of an OA-equipment maker name, the name of a product, and the form of a product at least. In the below-mentioned demolition process, this is because the work itself is enabled to simplify the demolition nature by the demolition person, and to carry out in a few procedure and an efficient demolition can be performed, when classified in an OA-equipment maker name, the name of a product, and the form of a product. Furthermore, when systems, such as demolition's automatic demolition line ** using the industrial robot etc., are established in the future, an efficient demolition becomes possible by subdivided judgment.

[0027] Moreover, as 2nd product information 28 memorized in the OA-equipment recovery demolition information database 219, it is desirable to be chosen out of one of the maker name of OA equipment, the name of a product, and the form of a product at least. It is possible for this to manage information, such as a recovery actual result of each OA equipment and a rate of recycling, according to the whole industry and model and by according to maker, and since the OA-equipment recovery demolition information database 219 is share-ized by the specification recovery base, the OA-equipment maker, and the material maker through the network, it is possible to get to know the actual result of a recycle system in an on-time.

[0028] Drawing 4 explains a concrete example of the process so far. The 1st product information 44 is acquired for used OA equipment 41 which allotted information record meanses, such as a used bar code, first with the input meanses 42, such as a bar code reader. The 1st product information 44 is collated with the various product information 46a, 46b, and 46c memorized by the OA-equipment recovery demolition information database 43, and the 1st corresponding product information 47 which carries out product information is acquired. And based on this, it is judgment (48) Made the 1st classification, and the OA-equipment recovery demolition information database 43 is memorized for the classified information as 2nd product information 410.

[0029] Next, the process which each used OA equipment classified to the 1st classification disassembles is explained using drawing 2 .

[0030] demolition processing sheathing from the 1st product information [in] 24, or the OA-equipment recovery demolition information database 219 -- a member -- information and processing in_which it does not dissolve -- a member -- demolition processing sheathing which has recognized information 211 (210), and has outputted and (212) recognized the information with output meanses, such as a liquid crystal panel and a monitor, -- a member -- information and processing of not dissolving -- a member -- it is the process which memorizes information 211 in an OA-equipment recovery demolition information database 219 (

[0031] this time -- demolition processing sheathing -- a member -- information and processing in which it does not dissolve -- a member -- demolition processing sheathing included in information 211 -- a member -- information -- at least -- demolition processing sheathing -- the quality of the material of a member, a material maker, and demolition processing sheathing -- a member -- a name and demolition processing sheathing -- a member -- it is desirable to consist of a number and one information on quantity It is that a number and quantity are contained. this -- demolition processing sheathing -- a member -- information -- demolition processing sheathing -- the quality of the material of a member, a material maker, and demolition processing sheathing -- a member -- a name and demolition processing sheathing -- a member -- By becoming the effective information at the time of the judgment work to below-mentioned demolition and 2nd classification, and memorizing these information in the OA-equipment recovery demolition information database 219 demolition processing of each OA equipment -- it is because it becomes possible to manage information, such as a recovery actual result of a member, and a rate of recycling, according to the whole industry and model and by according to maker

[0032] moreover, demolition processing sheathing recognized at this time -- a member -- information and processing in which it does not dissolve -- a member -- you may perform beforehand the process which memorizes information 211 in the OA-equipment recovery demolition information database 219 at the time of the process which memorizes the 2nd above-mentioned product information 28 in the OA-equipment recovery demolition information database 219 (27) on the contrary, demolition processing sheathing which skipped the process which memorizes the 2nd above-mentioned product information 28 in the OA-equipment recovery demolition information database 219 (27), and has been recognized at this time (210) -- a member -- information and processing in which it does not dissolve -- a member -- you may memorize the 2nd product information 28 simultaneously at the time of the process which memorizes information 211 in the OA-equipment recovery demolition information database 219 (213)

[0033] and demolition processing sheathing displayed on output meanses, such as a liquid crystal panel and a monitor, after recognition (210) and storage (213) -- a member -- information and processing in which it does not dissolve -- a member -- used OA equipment is disassembled based on information 211 (214), and a demolition processing sheathing member is classified to the 2nd classification 216 Then, a processing [in which it does not dissolve] sheathing member is carried and accumulated for a demolition processing sheathing member by the OA-equipment makers 220a and 220b to each material maker 221a, 221b, and 221c, respectively in the demolition processing sheathing member and processing [in which it does not dissolve] member which were carried out judgment 216.

[0034] As for the classification method of the 2nd classification 216, at this time, it is desirable to be chosen out of one of the quality of the material and the material makers at least. This is classified for every quality of the material and material maker in a process until it accumulates the below-mentioned demolition processing sheathing member on a material maker and processes this to a rework, and while preventing mixing of other members to the middle, it is possible to gather regeneration efficiency and it is because an efficient classification can be performed.

[0035] Moreover, to each material maker 221a, 221b, and 221c, the demolition processing sheathing member may have a relay ground in the meantime, although a processing [in which it does not dissolve] sheathing member is carried and accumulated by the OA-equipment makers 220a and 220b, respectively. Furthermore, the material makers 221a, 221b, and 221c may be a contractor specified by a material maker, or a contractor specified by an OA-equipment maker, respectively.

[0036] Used OA equipment is disassembled here, and a demolition processing sheathing member and a processing [in which it does not dissolve] member are classified to the 2nd classification, and are explained using drawing 5 about a concrete example of the process carried and accumulated.

[0037] Used OA equipment 51 (product made from OA-equipment maker A) classified into the 1st classification, The information for demolition [database / OA-equipment recovery demolition information / 57] of 52 (product made from OA-equipment maker B) is acquired. Information 510 is displayed. it -- the output means 58 -- demolition processing sheathing -- a member -- information 59 and processing in which it does not dissolve -- a member -- the quality of the material A which dissolves based on this information (511) and constitutes used OA equipment 51 and 52 for this -- a member 54 and the quality of the material B -- a member 55 and the quality of the material C -- a member 56 and processing in which it does not dissolve -- member 53a -- It classifies to 53b (512), and is carried and accumulated at the material maker A514, the material maker B515, the material maker C516, the OA-equipment maker A517, and the OA-equipment maker B518, respectively.

[0038] Each demolition processing sheathing member carried and accumulated to the material makers 221a, 221b, and 221c It lets each material maker's database terminals 226a, 226b, and 226c connected with the OA-equipment recovery demolition information database 219 through the network pass. each demolition processing sheathing -- using the art of a member, each regeneration 222a, 222b, and 222c is performed, and each reworks 223a, 223b, and 223c are obtained And it lets each material maker's database terminals 226a, 226b, and 226c pass, and the information on the obtained reworks 223a, 223b, and 223c is memorized in the OA-equipment recovery demolition information database 219 by which network connection was carried out. Thereby, information, such as a kind, quantity, etc. of Reworks 223a, 223b, and 223c, can be known on real time. Between the specification recovery base 23, the material makers 221a, 221b, and 221c and OA-equipment maker 220a, and 220b is especially able to acquire the information on Reworks 223a, 223b, and 223c on real time, since the OA-equipment recovery demolition information database 219 is share-ized through the network, and it is possible to manage recovery, conveyance, accumulation, demolition, regeneration, etc. correctly. the processing collected by the OA-equipment maker A517 and the OA-equipment maker B518 in which it does not dissolve -- although Members 53a and 53b can leave processing to each OA-equipment maker, respectively, it is desirable to perform recycling reuse in the parts and member covering details by each OA-equipment maker further

[0039] Moreover, as for an OA-equipment recovery demolition information database, it is desirable to connect with an OA-equipment vendor through a network. This collects used OA equipment currently installed in the sale place at the time of the OA-equipment sale with a new OA-equipment vendor. Used OA equipment collected from the information acquired from the OA-equipment recovery information database is carried and accumulated on a specification recovery base and a relay background. Or it is because it can perform being carried and accumulated on the specified specification recovery base or relay ground in the appointed area where a sale place belongs efficiently, and is because the storage situation of a recovery base and the relay ground can be further checked on real time and it becomes carriable to a more effective storage area.

[0040] It is desirable that a specification recovery base exists in each appointed area when two or more appointed area exists, each OA-equipment recovery demolition information database is connected through a network, and each OA-equipment recovery demolition information database is share-ized through a network between a specification recovery base, the relay ground, a material maker, and an OA-equipment maker. This is set in two or more appointed area 61a and 61b, as shown in drawing 6 . The specification recovery bases 62a and 62b, relay ground 63a which exist in each area, 63b, 63c, 63d, and 64e are connected with the OA-equipment recovery demolition information database 64 through the network 68. Moreover, the OA-equipment recovery demolition information database 64 is connected through the network 68 in the OA-equipment maker 65, the material maker 66, and the OA-equipment vendor 67.

[0041] Thus, it is possible to grasp the actual condition of used OA equipment which circulates in a commercial scene by unifying and managing the information on two or more appointed area, and circulation adjustment etc. can be performed from an OA-equipment maker, a material maker, etc., and it is effective.

[0042] The OA-equipment recovery demolition information database may consist of two databases with which the OA-equipment demolition information database and the OA-equipment recovery information database became independent. This treats only print-outs, such as demolition processing information on used OA equipment, about an OA-equipment demolition information database, and an OA-equipment recovery information database treats input, such as recovery data of used OA equipment, and demolition processed data. Thus, it is possible to avoid concern of eliminating and changing output-only information accidentally by dividing an OA-equipment recovery demolition information database at the time of the input of recovery data, demolition processed data, etc., and it is an effective means also in the field of security.

[0043] the above OA-equipment sheathing -- as for OA equipment, it is desirable in employing the recycle system of a member to consist of OA-equipment sheathing members which consist of the quality of the material of the specification for which it opted among two or more OA-equipment makers It is possible to be able to reduce the load of the above-mentioned demolition / judgment work, and to lower the cost of a system by carrying out like this. Moreover, it is possible to become the source of need by which the rework was stabilized by using the unification-ized quality of the material, and to attain stabilization of a system.

[0044] Moreover, also in the costs generated in these recycle systems, the costs are registered into the OA-equipment recovery demolition information database, and it is desirable that accounting and collection of these costs are performed on a database through the network where the OA-equipment recovery demolition information database is connected. Thereby, it is possible to cut down the cost accompanying accounting and collection of costs, and accounting and collection of the costs in real time can be performed further.

[0045] Moreover, it is also possible to connect through the system and network in the environmental accounting asked for the useful information acquired through these systems by the company in the future.

[0046] a recycle system important for earth environment protection as the industry which exceeded the framework between companies according to this operation gestalt although original recycling-ization of a single company was performed conventionally -- it can build -- OA-equipment sheathing efficient at a low cost -- recycling of a member is enabled and the rate of recycling of a product can be improved further Moreover, it becomes possible for various information to come to hand on real time, and effects, such as cost reduction and time shortening, can be obtained with share-izing recycling information in a network.

[0047] (2nd operation gestalt) Drawing 7 is a schematic diagram at the time of applying used OA equipment to the recycle system of OA equipment in the 2nd operation gestalt of this invention.

[0048] 71a, 71b, and 71C of drawing 7 express two or more end users which use various OA equipment. Used OA equipment generated in this OA-equipment user is collected by the OA-equipment maker shown by 72 of drawing 7 , OA-equipment vendors, or those transport industry companies that specified, and is collected, carried and accumulated by the specification recovery base of 73 of drawing 7 .

[0049] At this time, it is desirable in the process of recovery, conveyance, and accumulation to prepare at least one relay ground, as shown in drawing 3 . By preparing such a relay ground, it becomes possible to perform efficient recovery, conveyance, and accumulation. When the distance between an eccrisis place which collects, carries and accumulates directly used OA equipment specifically discharged by the OA-equipment user of 32e of drawing 3 at the specification recovery base of 35, and a specification recovery base is near, it is satisfactory for a recovery means. By however, the thing established for a relay ground which are 34a, 34b, 34c, and 34d when an eccrisis place and a specification recovery base are far By being carried and accumulated on a specification recovery base and the next relay background in the place which arrived at the relay ground at used OA equipment of a constant rate It can become possible to build planned recovery and conveyance / accumulation process, and useless number of times of conveyance and distance can be reduced, and efficient recovery, conveyance, and integrated system can be built. It is possible to reduce the cost of a recycle system furthermore.

[0050] The process after piling up the specification recovery base 73 is a process which reads the product information 74 on used OA equipment accumulated on the specification recovery base 73, inputs [75] and collates the product information 74 to the database terminal 714 of a specification recovery base connected to the recycling information database 713 (76), is an output means and outputs the result of collating 76 (77a). A printing means to output as printing information using a voice output means, a printer, etc. which are outputted with the voice using an image information output means, a loudspeaker, etc. which used a monitor, liquid crystal, etc. is mentioned to the output means at this time.

[0051] In this process, although product **** 74 of used OA equipment can also be obtained from the name of the product indicated by used OA equipment, the form of a product, etc., by this method, the work by the human effort is required, the workability is also bad, and collating [made / the mistake / in according to a human mistake] may be performed.

[0052] Therefore, it is desirable to allot an information record means beforehand to OA equipment at the time of OA-equipment manufacture. As for the product information 74 which a bar code logbook, a magnetic bar code, etc. are mentioned as a concrete information record means, and is recorded on this information record means, it is desirable that one of the name of the maker of OA equipment, the name of an OA-equipment product, the form and the model of an OA-equipment product, the date of manufacture of OA equipment, the part number of OA equipment, the use history information on aforementioned OA equipment, the maintenance information on aforementioned OA equipment, and the part information on aforementioned OA equipment is contained at least. It is because information, such as a name of OA equipment, a name of a product, and form, is information required in order to classify to the 1st classification. Moreover, the use history information on OA equipment, maintenance information, and part information turn into useful information in the process and demolition process which are classified to the 1st classification, the 2nd classification, and the 3rd classification. About this, a copying machine is mentioned as an example and explained. Also in the parts same based on the information with which in the case of the copying machine practical use use years, the number of copies, etc. of OA equipment are recorded as use history information, and the information on the number of times of a maintenance, parts, etc. is recorded further, and a unit the short thing of practical use use years, a long thing, and what has the few number of copies -- by classifying to different classifications, such as many things and existence of a maintenance It becomes possible to prepare a difference in the inspection process in a subsequent reuse process, and while raising recycling efficiency, it becomes possible to cut down recycling cost.

[0053] Moreover, product information which is needed for the information on the recycling information database 713 collated with this product information 74 at least at the above-mentioned collating and the below-mentioned 1st demolition information, the 2nd demolition information and the candidate for the 1st recycling -- the art of a member, and the candidate for the 2nd recycling -- the art of a member -- the candidate for the 3rd recycling -- the art of a member, and the 1st reuse object -- the art of a member -- the 2nd reuse object -- it is required to memorize or constitute the art, spallation / trituration judgment information, the 1st judgment result, the 2nd judgment result, the 3rd judgment result, and the 4th judgment result of a member, and these serve as important information, such as demolition of OA equipment, and judgment

[0054] The product information 74 can be read in information record meanses, such as a bar code, using information readers, such as an input means, for example, a bar code reader etc., by this, collating with this product information 74 and the information on the recycling information database 713 can be performed further in an instant, the collating result can be promptly known by the printed information printed using image information or a printer etc. which let the monitor pass, and the efficient collating work of it is attained.

[0055] The process after collating (76) is the process which memorizes in the recycling information database 713 through the database terminal 714 of a specification recovery base connected to the recycling information database 713 by making into the 1st judgment information 79 the information which classified used OA equipment to two or more 1st classifications based on the above-mentioned product information 74 and the collating result of the recycling information database 713 (78), and was classified at this time (78) (710a).

[0056] As for the classification method of the 1st classification classified at this time, it is desirable to be chosen out of one of the form and models of an OA-equipment maker's name, the name of an OA-equipment product, and OA-equipment product at least. In the below-mentioned demolition process, this is because the work itself is enabled to simplify the demolition nature by the demolition person, and to carry out in a few procedure and an efficient demolition can be performed, when classified from the form and the model of an OA-equipment maker's name, the name of an OA-equipment product, and OA-equipment product. Furthermore, it is because an efficient demolition becomes possible by subdivided judgment when systems, such as demolition's automatic demolition line ** using the industrial robot etc., are established in the future.

[0057] Moreover, as the 1st judgment result 79 memorized in the recycling information database 713, it is desirable to be chosen out of one of an OA-equipment maker's name, the name of an OA-equipment product, the form and the model of an OA-equipment product, and the storage quantity at least. This becomes it is possible to manage information, such as a recovery actual result of each OA equipment and a rate of recycling, according to the whole industry and model and by according to maker, and possible to get to know the actual result of a recycle system in an on-time, since the recycling information database 713 is share-ized by the specification recovery base, the OA-equipment maker, and the material maker through the network.

[0058] Drawing 8 explains a concrete example of the process so far. The product information 84 on used OA equipment 81 is acquired for used OA equipment 81 which allotted information record meanses, such as a used bar code, first with the input meanses 82, such as a bar code reader. The product information 84 is collating (85) Made into the various product information 86a, 86b, and 86c memorized by the recycling information database 83, and the corresponding product information 87 is acquired. And based on this, it is judgment (88) Made the 1st classification, and memorizes in the recycling information database 83 by making the classified information into the 1st judgment result 810.

[0059] Next, the process which each used OA equipment classified to the 1st classification disassembles is explained using drawing 7 .

[0060] Based on the information which outputted the information for the 1st demolition information 712 with output meanses, such as a liquid crystal panel and a monitor, (77b), and was outputted from the product information 74 in each used OA equipment, or the recycling information database 713, the sheathing member and the case section of OA equipment which disassembled the sheathing member and the case section of OA equipment (711), and was disassembled further are first classified to two or more 2nd classifications (715). And it is the process memorized in the recycling information database 713 by making the judgment result to the 2nd classification into the 2nd judgment result 716 (710b).

[0061] this time -- the 1st demolition information 712 -- sheathing of OA equipment -- the demolition information on a member and the case section, and sheathing -- the recycling information and reuse information on a member and the case section -- having -- at least -- sheathing -- the quality of the material of a member and the case section, and sheathing -- the name of the material maker of a member and the case section, and sheathing -- the name of the OA-equipment maker of a member and the case section, and sheathing -- the name of a member and It is having the recycling information and reuse information on a member and the case section. this -- the 1st demolition information 712 -- sheathing -- the demolition information on a member and the case section, and sheathing -- While acquiring the effective information for disassembling the sheathing member of OA equipment classified into the 1st classification, and the case section, the information for those recycling or reuse can be acquired. this information -- further -- sheathing -- the quality of the material of a member and the case section, and sheathing -- the name of the material maker of a member and the case section, and sheathing -- the name of the OA-equipment maker of a member and the case section, and sheathing -- the name of a member and the case section, and sheathing -- a member and the member of the case section -- it is because it becomes the effective information at the time of the judgment work to the 2nd classification from a number

[0062] It is classified into the member 719. moreover -- as the classification method of the 2nd classification -- at least -- the candidate for the 1st recycling -- a member 717 and the 1st reuse object -- a member 718 and a 1st reuse [of the 1st recycling] non-object -- further -- the candidate for the 1st recycling -- the classification of a member 717 -- at least -- each sheathing section -- It is chosen out of one of the numbers. the quality of the material of the case section, a material maker's name, a name, and a member -- the 1st reuse object -- the classification of a member 718 -- at least -- the quality of the material of each sheathing section and the case section -- an OA-equipment maker's name, a name, and a member -- it chooses out of one of the numbers -- having -- a 1st reuse [of the 1st recycling] non-object -- the classification of a member 719 -- at least -- each 1st reuse [of the 1st recycling] non-object -- the name of a member, and a member -- it is desirable to be chosen out of the name of a number and an OA-equipment maker

[0063] The sheathing member and the case section which this classified are because subsequent recycling reuse arts differ in the quality of the material, a configuration, etc., respectively, and are performing an above-mentioned classification, and the classification of them into which the art etc. is unified is attained. Moreover, while preventing mixing of other members in the middle of a recycling reuse process, it is possible to gather regeneration efficiency and an efficient classification can be performed.

[0064] Thus, the 2nd judgment result 716 which is the classified information consists of a result of the 2nd classification, or its part, and it is desirable to be chosen out of one of the storage quantity for every classification and the storage days at least. the [because,] -- the time of memorizing in the recycling information database 713 as a 2 judgment result 716 (710b) -- each OA-equipment sheathing -- it is because it becomes possible to manage information, such as demolition processing of a member and the case section, a recovery actual result, and a rate of recycling, according to the whole industry and model and by according to maker

[0065] You may perform the reuse process of the 1st classification kind without the process directly between the processes of a sheathing member and the case section demolition 711 from the judgment 78 of the 1st classification. That is, in OA equipment classified into the kind for reuse which the model for reuse is specified to be the 1st classification, and was specified by the product information 74 or the recycling information database 713, it is the product information 74 or a method based on the recycling information database 713, and is the process which processes and inspects OA equipment and uses OA equipment as a reproduction product and reproduction parts. This process is explained in detail using drawing 9 .

[0066] Based on the product information 91 or the recycling information database 92, judgment 93 to the 1st classification is performed, the sheathing member and the case section demolition 94 of OA equipment are usually performed, and, as for OA equipment, judgment 95 to the 2nd classification is performed. under the present circumstances, model ****** used as a reuse object etc. registers with the product information 91 or the recycling information database 92 beforehand -- having -- **** -- these -- inspection after [the 1st classification] judgment 93 was taken 96a -- conveyance 97 is taken and an OA-equipment maker, OA-equipment maker production works, and the OA-equipment maker appointed works 98 are piled up Then, it can let the re encrypt 911 using washing 99, and the new parts and the unit 910 by the product information 91 or the method based on the recycling information database 92, and inspection 96b pass, and a reproduction product and the reproduction parts 912 can be obtained. Under the present circumstances, the information on an inspection result, or a reproduction product and reproduction parts is memorized by the recycling information database 92. Thereby, information with effective demolition processing, recovery actual result, rate of recycling, etc. can be acquired. Moreover, it is desirable to perform the judgment 715 and 93 to above-mentioned sheathing member and case section demolition 711 and 94, and the 2nd classification or judgment 734 to the 3rd classification mentioned later in OA equipment judged to be a defective by inspection processes 96a and 96b. It is effective for effective recycling reuse being performed and suppressing eccrisis of waste by carrying out like this, also in what was judged to be a defective by inspection processes 96a and 96b. In the case where it is a product with high case where the above process has collected comparatively new OA equipment and reliability, it can be said that it is possible to save time and effort, such as demolition and judgment, and it is a very effective means.

[0067] next, the 1st reuse [of the 1st recycling] non-object classified by the 2nd classification -- down stream processing of a member is explained using drawing 7 here -- the member for un-[1st reuse / of the 1st recycling] -- concrete -- the chassis section of OA equipment, and interior -- a member etc. is mentioned two or more 1st reuse [of the 1st recycling] non-objects -- the information which the member 719 outputted the 2nd demolition information 733 in the product information 74 or the recycling information database 713 with output meanses, such as a liquid crystal panel and a monitor, (77c), and outputted the information -- being based -- the chassis section of OA equipment, and interior -- 1st reuse [of the 1st recycling] non-objects, such as a member, -- a member 719 is classified to two or more 3rd classifications (734) And it is the process memorized in the recycling information database 713 by making the judgment result to the 3rd classification into the 3rd judgment result 735 (710d).

[0068] this time -- the 2nd demolition information 733 -- the 1st reuse [of the 1st recycling] non-object of OA equipment -- with the demolition information on a member 719 It has the recycling information and reuse information on a member 737. the candidate for the 2nd recycling mentioned later -- the [a member 736 and] -- 2 reuse objects -- and -- at least -- the candidate for the 2nd recycling -- the quality of the material of a member 736, a name, a material maker's name, and a member -- a number and the 2nd reuse object -- the name of the name of a member 737, the quality of the material, and an OA-equipment maker, and a member -- it is desirable to be chosen out of one of the numbers It is having the reuse information on a member 737. this -- the 2nd demolition information 733 -- a 1st reuse [of the 1st recycling] non-object -- the demolition information on a member 719, and the candidate for the 2nd recycling -- the [the recycling information on a member 736, and] -- 2 reuse objects -- Demolition of a member 719 the 1st reuse [of the 1st recycling] non-object of OA equipment classified into the 2nd classification -- while acquiring the effective information for disassembling a member 719 -- a 1st reuse [of the 1st recycling] non-object -- Recycling the candidate for the 2nd recycling classified and obtained -- the [a member 736 and] -- 2 reuse objects -- a member 737 the information for reuse -- it can obtain -- this information -- further -- the candidate for the 2nd recycling -- the quality of the material of a member 736

-- a name, a material maker's name, and a member -- a number and the 2nd reuse object -- the name of the name of a member 737, the quality of the material, and an OA-equipment maker, and a member -- it is because it becomes the judgment method to the 3rd classification from a number, and the effective information at the time of work

[0069] It is classified into the member 738. moreover -- as the classification method of the 3rd classification -- at least -- the candidate for the 2nd recycling -- a member 736 and the 2nd reuse object -- a member 737 and a 2nd reuse [of the 2nd recycling] non-object -- further -- the candidate for the 2nd recycling -- the classification of a member 736 -- at least -- each candidate for the 2nd recycling -- the quality of the material of a member -- a material maker's name, a name, and a member -- it chooses out of one of the numbers -- having -- the 2nd reuse object -- the classification of a member 737 -- at least -- each 2nd reuse object -- the quality of the material of a member -- an OA-equipment maker's name, a name, and a member -- it chooses out of one of the numbers -- having -- a 2nd reuse [of the 2nd recycling] non-object -- the classification of a member 738 -- at least -- each 2nd reuse [of the 2nd recycling] non-object -- the name of a member, and a member -- it is desirable to be chosen out of one of the names of a number and an OA-equipment maker

[0070] The member for the 2nd recycling and the member for the 2nd reuse which this classified are because subsequent recycling reuse arts differ in the quality of the material, a configuration, etc., respectively, are performing an above-mentioned classification, and are because the classification into which the art etc. was unified is attained. Moreover, while preventing mixing of other members in the middle of a recycling reuse process, it is possible to gather regeneration efficiency and an efficient classification can be performed.

[0071] Thus, the 3rd judgment result 735 which is the classified information consists of a result of the 3rd classification, or its part, and it is desirable to be chosen out of one of the storage quantity for every classification and the storage days at least. the [because,] -- the time of memorizing in the recycling information database 713 as a 3 judgment result 735 (710d) -- each candidate for the 2nd recycling -- the [a member and] -- 2 reuse objects -- it is because it becomes possible to manage information, such as demolition processing of a member, a recovery actual result, and a rate of recycling, according to the whole industry and model and by according to maker

[0072] next, the candidate for recycling -- a member -- down stream processing is explained A member 736 carries each member for recycling to each material makers 728a and 728b (722b, 722c). the candidate for the 1st recycling classified according to the judgment 715 to the 2nd classification, and the judgment 734 to the 3rd classification -- the [a member 718 and] -- the candidate for 2 recycling -- It is processed into each reworks 731a and 731b by the method of the regeneration 729a and 729b of a member. each candidate for recycling memorized by the recycling information database 713 -- It is the process which memorizes the information on each obtained reworks 731a and 731b in the recycling information database 713. Thereby, since the information on each rework can be known on real time, important information when performing adjustment and management of the conveyance, the recovery, the accumulation, demolition, and regeneration in the member for recycling can be acquired. moreover, each candidate for recycling carried by the material makers 728a and 728b at this time (722b, 722c) -- it is desirable to memorize the quantity of a member, a date of payment, etc. in the recycling information database 713 More exact management etc. can be performed by carrying out like this. Moreover, although each member for recycling is carried and accumulated by each material maker 728a and 728b, you may have a relay ground in the meantime. Furthermore, the material makers 278a and 728b may be the contractors specified by an OA-equipment maker, the contractor, for example, the middle processor etc., specified by a material maker etc., respectively.

[0073] next, a reuse object -- a member -- down stream processing is explained the 1st reuse object classified according to the judgment 715 to the 2nd classification, and the judgment 734 to the 3rd classification -- the [a member 717 and] -- 2 reuse objects -- a member 737 after classifying into each member for reuse Inspection 721a and 721c is conducted by the method based on the recycling information database 713, respectively. the inspection results 720a and 720b -- the recycling information database 713 -- storage (710c, 710e) -- carrying out -- a reuse object -- the acceptance article of a member is carried to each OA-equipment makers 723a and 723b (722a, 722d)

[0074] At this time, the inspection 721a and 721c before conveyance (722a, 722d) of each OA-equipment makers 723a and 723b may be omitted. It is possible to raise a process capability by inspection being conducted also after the below-mentioned re encrypt, and omitting the inspection 721a and 721c before conveyance depending on the case, and it is because recycle-system cost can be reduced.

[0075] the method memorized by the recycling information database 713 in each member for reuse after conveyance (722a, 722d) of the OA-equipment makers 723a and 723b -- each reuse object -- washing and the re encrypts 724a and 724b of a member are performed, inspection 721b and 721d by the method further memorized by the recycling information database 713 is conducted, and a reprocessed article and the re-parts 726a and 726b are obtained The information on each reprocessed article and re-parts 726a and 726b obtained at this time is memorized in the recycling information database 713. Moreover, in washing and re encrypts 724a and 724b, according to a case, it is desirable to supply new parts and Units 725a and 725b, and the information supply and the information storages which were supplied at this time, such as the amount of supply, an inventory, etc. of new parts and Units 725a and 725b, are performed by the recycling information database 713. Thereby, the information on each reprocessed article and re-part can be known on real time, and important information when performing adjustment and management of the conveyance, the recovery, the accumulation, demolition, and regeneration in the member for reuse can be acquired.

[0076] moreover, each reuse object carried by the OA-equipment makers 723a and 723b at this time (722a, 722d) -- it is desirable to memorize the quantity of a member, a date of payment, etc. in the recycling information database 713 It is because more exact management etc. can be performed by carrying out like this.

[0077] Moreover, although each member for reuse is carried and accumulated by each OA-equipment maker 723a and 723b, you may have a relay ground in the meantime. Furthermore, the OA-equipment makers 723a and 723b may be contractors, such as the contractor specified by an OA-equipment maker, for example, a middle processor, and a part maker, respectively.

[0078] a reuse object -- in the inspection process of a member, although it passes through an above-mentioned process about an acceptance article, it is desirable to recycle again the parts for reuse judged that inspection is poor about an inspection defective especially -- the 1st reuse object -- the [a member 717 and] -- 2 reuse objects -- about what inspection results 720a and 720b were judged to be poor by the inspection process before a member 737 is carried (722a, 722d), it is desirable to deal with each member for reuse with a poor inspection as a member for un-[2nd reuse / of the 2nd recycling] By carrying out like this, effective recycling of the member in which reuse is impossible is performed, things can be carried out and the thing which suppress discharge of waste and for which a more effective recycle system is built becomes possible.

[0079] next, a 2nd reuse [of the 2nd recycling] non-object -- the art of a member is explained the judgment 715 to the 2nd classification according to decomposition and demolition of a sheathing member and the case section originally and ideally, and the chassis section and interior -- it is the judgment 734 to the 3rd classification by decomposition and demolition of a member, and it is desirable that all can be classified to the member for recycling and the member for reuse However, in the present condition, it is difficult to classify only by decomposition and demolition in fact. That is because complicated members, such as a complicated composite material of a metal and plastics and composite material of different-species plastics, are carried in the present product. therefore, these members, the [i.e.,], -- it is necessary to take into consideration also about the recycling about the member for un-[2nd reuse / of 2 recycling]

[0080] first, each 2nd reuse [of the 2nd recycling] non-object classified into various classifications -- a member 738 -- the product information 74 or recycling information database 7 spallation / trituration judgment information 740 in 13 -- being based -- a 2nd reuse [of the 2nd recycling] non-object -- the information on spallation, trituration, and the judgment 739 of a member 738 is recognized, and the recognition result is outputted with output meanses, such as a liquid crystal panel and a monitor this time -- spallation / trituration judgment information 740 -- a 2nd reuse [of the 2nd recycling] non-object -- spallation / trituration information on a member 738, and the below-mentioned candidate for the 3rd recycling -- the recycling information on a member 742 -- having -- at least -- the candidate for the 3rd recycling -- the name of the name of a member, the quality of the material, and a material maker, and a member -- it is desirable to have the information chosen from one of the numbers It is having the recycling information on a member 742. this -- spallation / trituration judgment information 740 -- a 2nd reuse [of the 2nd recycling] non-object -- spallation / trituration information on a member 738, and the candidate for the 3rd recycling -- the 2nd reuse [of the 2nd recycling] non-object of OA equipment classified into the 3rd classification, while acquiring the effective information for crushing and grinding a member 738 The information on the recycling sake of a member 742 can be acquired. a 2nd reuse [of the 2nd recycling] non-object -- the candidate for the 3rd recycling obtained by grinding [spallation] and classifying a member 738 -- this information -- further -- the candidate for the 3rd recycling -- the quality of the material of a member 742, a name, a material maker's name, and a member -- the candidate for the 3rd recycling from a number -- it is because it becomes the effective judgment method of a member, and the effective information at the time of work

[0081] Spallation / trituration judgment information 740 on a member 738 is recognized. the [next,] -- a 2nd reuse [of 2 recycling] non-object -- A member 738 is crushed and ground. the result outputted after outputting the result -- being based -- a 2nd reuse [of the 2nd recycling] non-object -- this -- two or more candidates for the 3rd recycling -- the 2nd reuse [of the 2nd recycling] non-object which classified to the member 742 and was carried out further spallation and trituration / judgment 739 -- it memorizes in the recycling information database 713 by making the judgment information on a member 738 into the 4th judgment result 741 (710f)

[0082] this time -- the candidate for the 3rd recycling -- as the classification method of a member 742 -- at least -- each candidate for the 3rd recycling -- the quality of the material of a member, a material maker's name, a name, and a member -- it is desirable to be chosen out of one of the numbers the candidate for the 3rd recycling which this classified -- a member 742 is because subsequent recycling arts differ in the quality of the material, a configuration, etc., is performing an above-mentioned classification, and is because the classification into which the art etc. was unified is attained Moreover, while preventing mixing of other members in the middle of a recycling process, it is possible to gather regeneration efficiency and an efficient classification can be performed.

[0083] thus, the 4th judgment result 741 which is the classified information -- the candidate for the 3rd recycling -- it consists of a result of a member 742, or its part, and it is desirable to be chosen out of one of the storage quantity for every classification and the storage days at least the [because,] -- the time of memorizing in the recycling information database 713 as a 4 judgment result 741 (710f) -- each candidate for the 3rd recycling -- it is because it becomes possible to manage information, such as demolition processing of a member 742, a recovery actual result, and a rate of recycling, according to the whole industry and model and by according to maker

[0084] and each classified candidate for the 3rd recycling -- it is processed into rework 730c by art 729c based on [based on each material maker 728c for the member 742] the recycling information database 713 for the member for conveyance 722e and each recycling accumulated and piled up, and the information on obtained rework 730c is memorized in the recycling information database 713 Thereby, since the information on each rework 730c can be known on real time, important information when performing adjustment and management of the conveyance, the recovery, the accumulation, demolition, and regeneration in the member for recycling can be acquired. moreover, each candidate for recycling carried by material maker 728c at this time (722e) -- it is desirable to memorize the quantity of a member, a date of payment, etc. in the recycling information database 713 More exact management etc. can be performed by carrying out like this. Moreover, although each member for recycling is carried and accumulated by each material maker 728c, you may have a relay ground in the meantime. Furthermore, material maker 728c may be the contractors specified by an OA-equipment maker, the contractor, for example, the middle processor etc., specified by a material maker etc., respectively.

[0085] In a member 742 moreover, the candidate for the 2nd recycling produced at the old process -- a member 736 and the candidate for the 3rd recycling -- the candidate for the 2nd recycling -- a member 736 -- the candidate for the 1st recycling, when it is the same classification as the classification of a member 718 It is desirable to deal with it as a member 718. the candidate for the 2nd recycling -- a member 736 -- the time of judgment of the 3rd classification -- the candidate for the 1st recycling -- the same -- the candidate for the 3rd recycling -- a member 742 -- the candidate for the 1st recycling -- the [a member 718 or] -- the candidate for 2 recycling, when it is the same classification as the classification of a member 736 the candidate for the 3rd recycling -- a member 742 -- the candidate for the 3rd recycling -- the time of judgment of a member -- the candidate for the 1st recycling -- the [a member 718 or] -- the candidate for 2 recycling -- it is desirable to deal with it as a member 736 It may be used for the chassis section or the interior member, and parts with the same quality of the material of a sheathing member and the case section etc. are unifying them and managing these in recycling and the judgment at the time of carrying out reuse, and become possible [excluding a useless classification], recycle-system cost is reduced, and this can be improved in recycling efficiency.

[0086] Used OA equipment is disassembled here and a more concrete example of the process classified to the 1st classification, the 2nd classification, and the 3rd classification is explained using drawing 10 .

[0087] Used OA equipment 1002 (product made from OA-equipment maker A) classified by the 1st classification (1001), The information for demolition 1009 is acquired for 1003 (product made from OA-equipment maker B) from a recycling information database. sheathing which disassembles it (1009) and consists this of the quality of the material A1004 which constitutes used OA equipment 1002 and 1003 -- Members 1004a and 104b -- sheathing which consists of the quality of the material B1005 -- sheathing which consists of members 1005a and 1005b and the quality of the material C1006 -- Members 1006a and 1006b and a 1st reuse [of the 1st recycling] non-object -- judgment 1010 of the 2nd classification of a member 1011 is carried out

[0088] the [next,] -- a 1st reuse [of 1 recycling] non-object -- judgment 1012 to the 3rd classification of a member 1011 is performed the chassis section parts 1007a and 1007b which consist of the quality of the material D1007 at this time, and a 2nd reuse [of the 2nd recycling] non-object, although classified by the classification 1013 which consists of members 1008a and 1008b at the 3rd classification (1012) Chassis section part 1006c which consists of chassis section part 1004c which consists of the quality of the material A1004, and the quality of the material C1006 In judgment of the 3rd classification, chassis section part 1006c which consists of chassis section part 1004c which becomes the 2nd classification kind of the same quality of the material which exists in the classification produced in judgment of the 2nd classification from the quality of the material A1004, and the quality of the material C1006 is incorporated and classified, without newly classifying. A useless classification can be excluded by carrying out like this, and it can consider as the efficient classification method.

[0089] The aforementioned specification recovery base has had the input means for inputting the state of the demolition section of OA equipment and OA equipment into a recycling information database, and it is still more desirable in the process chosen from one of the input process of product information, the judgment process of the 2nd classification, the judgment process of the 3rd classification, and the judgment processes of spallation and trituration at least in inputting the state of the demolition section of OA equipment and OA equipment to the aforementioned recycling information database. This is inputting the deficit of the appearance of collected OA equipment, after [the demolition] appearance, the parts further built in OA equipment, and a unit, a breakage state, etc. into a recycling information database at each process, and the OA-equipment maker connected from this input data in the network can acquire product information, such as an operating condition and an actual result of OA equipment. And the appearance of OA equipment and its demolition section, a cleaning state, an appearance state, etc. enable it to give a big effect to the work after a subsequent judgment process. The OA-equipment maker who connected with the network judges the appearance of specifically inputted OA equipment and its demolition section, a cleaning state, an appearance state, etc., and it also becomes possible to direct subsequent down stream processing directly. For example, in the member which was excellent in appearance, it is because it becomes possible of recycling, an ellipsis of work [at the time of a reuse process], such as washing, and an injury to do the rational work of skipping an inspection process and performing a part of message exchanges of the part etc. directly in intense parts etc.

[0090] Moreover, as for a recycling information database, it is desirable to connect with an OA-equipment vendor through a network. This collects used OA equipment currently installed in the sale place at the time of the OA-equipment sale with a new OA-equipment vendor. Used OA equipment collected from the information acquired from the recycling information database is carried and accumulated on a specification recovery base and a relay background. Or it is because it can perform being carried and accumulated on the specified specification recovery base or relay ground in the appointed area where a sale place belongs efficiently, and is because the storage situation of a recovery base and the relay ground can be further checked on real time and it becomes carriable to a more effective storage area.

[0091] It is desirable that a specification recovery base exists in each appointed area when two or more appointed area exists, each recycling information database is connected through a network, and the recycling information database is share-ized through a network between a specification recovery base, the relay ground, a material maker, and an OA-equipment maker. As this shows drawing 11 , in two or more appointed area 1101a and 1101b, the specification recovery bases 1102a and 1102b and the relay grounds 1103a, 1103b, 1103c, 1103d, and 1103e which exist in each area are connected with the recycling information database 1104 through the network 1108, and the recycling information database 1104 is connected through the network 1108 in the OA-equipment maker 1105, the material maker 1106, and the OA-equipment vendor 1107.

[0092] Thus, it is possible to grasp the actual condition of used OA equipment which circulates in a commercial scene by unifying and managing the information on two or more appointed area, and circulation adjustment etc. can be performed from an OA-equipment maker, a material maker, etc., and it is effective.

[0093] At least a recycling information database The database of product information, the database of the 1st demolition information, the database of the 2nd demolition information, and the candidate for the 1st recycling -- the database of the art of a member -- the candidate for the 2nd recycling -- the database of the art of a member, and the candidate for the 3rd recycling -- the database of the art of a member -- the 1st reuse object -- the database of the art of a member, and the 2nd reuse object -- the database of the art of a member -- You may consist of independent 2 databases chosen from the database of spallation / trituration judgment information, the database of the 1st judgment result, the database of the 2nd judgment result, and the database of the 3rd judgment result and the database of the 4th judgment result.

[0094] This about a recycling information database the candidate for the 1st recycling -- the database of the art of a member, and the candidate for the 2nd recycling -- the database of the case where only the print-out of the database of the art of a member etc. is treated, or the 1st judgment result -- It is possible to avoid concern of eliminating and changing output-only information accidentally at the time of an input by treating input, such as a database of the 2nd judgment result, and dividing a recycling information database, and it is an effective means also in the field of security.

[0095] As for OA equipment, it is desirable in employing the recycle system of above OA equipment to consist of OA-equipment members which consist of the quality of the material of the specification for which it opted among two or more OA-equipment makers.

[0096] It is possible to be able to reduce the load of the above-mentioned demolition / judgment work, and to lower the cost of a system by carrying out like this. Moreover, it is possible to become the source of need by which the rework was stabilized by using the unification-ized quality of the material, and to attain stabilization of a system.

[0097] Moreover, also in the costs generated in these recycle systems, the costs are registered into the recycling information database, and it is desirable that accounting and collection of these costs are performed on a database through the network where the recycling information database is connected. Thereby, it is possible to cut down the cost accompanying accounting and collection of costs, and accounting and collection of the costs in real time can be performed further.

[0098] Moreover, it is also possible to connect through the system and network in the environmental accounting asked for the useful information acquired through these systems by the company in the future.

[0099] although this recycle system is furthermore limited to the OA-equipment field, using for other industrial fields is also possible, and it applies to the field which collects and processes waste etc. as a public system in the future -- things are possible

[0100] Although original recycling-ization of a single company was performed conventionally, according to this operation gestalt, a recycle system important for earth environment protection as the industry beyond the framework between companies can be built, recycling of efficient OA equipment is enabled by the low cost, and the rate of recycling of a product can be improved further. As a recycle system, it supposes that it is possible and not stopping at material recycling but performing reuse of a product and parts efficiently can still also aim at improvement in the further rate of recycling. Moreover, it becomes possible for various information to come to hand on real time, and effects, such as cost reduction of a recycle system and time shortening, can be obtained with share-izing recycling information in a network.

[0101] The program code of the software for realizing the function of the above-mentioned operation gestalt is supplied, and what was carried out by making it operate according to the program stored in the computer (CPU or MPU) of the system is contained under the category of this invention.

[0102] In this case, the function of the operation gestalt which the program code of the above-mentioned software itself mentioned above will be realized, and the record medium which stored the means for supplying the program code itself and its program code to a computer and the program code which is compared and is cut foolishly constitutes this invention. As a record medium which memorizes this program code, a floppy (registered trademark) disk, a hard disk, an optical disk, a magneto-optic disk, CD-ROM, a magnetic tape, nonvolatile memory card, ROM, etc. can be used, for example.

[0103] In addition, it passes over no above-mentioned operation gestalten to what showed a mere example of the embodiment which hits carrying out this invention, and the technical range of this invention must not be interpreted by these in limitation. That is, this invention can be carried out in various forms, without deviating from the technical thought or its main feature.

[0104]

[Effect of the Invention] As explained above, a recycle system important for earth environment protection as the industry beyond the framework between companies according to this invention can be built, recycling of an efficient device is enabled by the low cost, and the rate of recycling of a device can be improved further.

[Translation done.]

* NOTICES *
Japan Patent Office is not responsible for any damages caused by the use of this translation.
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is drawing which gave an example of the recycle system by the conventional OA-equipment maker.
[Drawing 2] It is drawing showing an example of the recycle system by the OA-equipment maker of the 1st operation gestalt of this invention.
[Drawing 3] In the recovery process from the OA-equipment user of this operation gestalt to a specification recovery base, it is drawing having shown an example in the case of carrying out a relay ground course.
[Drawing 4] It is drawing having shown an example of a process which collates the 1st product information on this operation gestalt with an OA-equipment recovery demolition information database, and memorizes the result to OA-equipment recovery demolition information as 2nd product information.
[Drawing 5] It is drawing which gave a concrete example which dissolves based on an OA-equipment recovery demolition information database, and classifies the OA-equipment sheathing member of this operation gestalt to the 2nd classification.
[Drawing 6] It is drawing which gave an example of network-connection-izing in the case of having two or more appointed area of this operation gestalt.
[Drawing 7] It is drawing having shown an example of the recycle system by the OA-equipment maker of the 2nd operation gestalt of this invention.
[Drawing 8] It is drawing having shown an example of the process which collates the product information on this operation gestalt with a recycling information database, and is memorized in a recycling information database by making the result into the 1st judgment result.
[Drawing 9] In the 1st classification of this operation gestalt, it is drawing having shown an example in the case of performing the process of the reuse of a direct product.
[Drawing 10] It is drawing which gave a concrete example classified to the 1st classification of this operation gestalt, the 2nd classification, and the 3rd classification.
[Drawing 11] It is drawing which gave an example of network-connection-izing in the case of having two or more appointed area of this operation gestalt.
[Description of Notations]
11a, 11b, 11c, 21a, 21b, 21c, 32a, 32b, 32c, 32d, 32e, 71a, 71b, 71c OA-equipment user
12a, 12b, 12c OA-equipment sale
13, 14, 15 Recovery of used OA equipment
16,220a, 220b, 517, 518, 65,723a, 723b, 1105 OA-equipment maker
17, 18, 51, 52, 1002, 1003 Used OA equipment
19 Recycling
110 Cast-Away Disposal
22, 33a, 33b, 33c, 33d, 33e, 33f, 33g, 33h, 33i, 72 Recovery, conveyance, and accumulation
23, 35, 62a, 62b, 73, 1102a, 1102b Specification recovery base
24 44 1st product information
25, 42, 75, 82 An input and input means
26, 45, 76, 85 Collating
27,213,224a, 224b, 224c, 49,513,710a, 710b, 710c, 710d, 710e, 710f, 89 Storage
28,410 2nd product information
29, 48, 78, 88, 93, 1001 Judgment to the 1st classification
210 Recognition
211 and 59,510 demolition processing sheathing -- a member -- information and processing in which it does not dissolve -- a member -- information
212, 58, 77a, 77b, 77c An output and output means
214, 511, 732 Demolition

215, 225a, 225b, 226a, 226b, 226c, 714, 727a, 727b, 731a, 731b, 731c Database terminal
216, 512, 715, 95, 1010 Judgment to the 2nd classification
217 Processing in Which it Does Not Dissolve -- Conveyance and Accumulation of Member
218 Demolition Processing Sheathing -- Conveyance and Accumulation of Member
219, 43, 57, 64 OA-equipment recovery demolition information database
221a, 221b, 221c, 514, 515, 516, 66,728a, 728b, 728c, 1014, 1015, 1016, 1017, 1107 Material maker
222a, 222b, 222c, 729a, 729b, 729c Regeneration
223a, 223b, 223c, 730a, 730b, 730c Rework
31, 61a, 61b, 1101a, 1101b The appointed area
34a, 34b, 34c, 34d, 63a, 63b, 63c, 63d, 63e, 1103a, 1103b, 1103c, 1103d, 1103e Relay ground
41 81 Used OA equipment which allotted the information record means
46a, 46b, 46c, 86a, 86b, 86c Information in a database
47 87 Collating result (1st product information after collating, and product information after collating)
53a and 53b processing in which it does not dissolve -- member
54 Demolition Processing Sheathing -- Quality of the Material A of Member
55 Demolition Processing Sheathing -- Quality of the Material B of Member
56 Demolition Processing Sheathing -- Quality of the Material C of Member
67 1107 OA-equipment vendor
68 1108 Network
74, 84, 91 Product information
79,810 The 1st judgment result
711, 94, 1009 A sheathing member and case section demolition
712 1st Demolition Information
713, 83, 92, 1104 Recycling information database
716 2nd Judgment Result
717 1st Reuse Object -- Member
718 Candidate for 1st Recycling -- Member
719 and 1101 a 1st reuse [of the 1st recycling] non-object -- member
720a, 720b Inspection result
721a, 721b, 721c, 721d, 96a, 96b Inspection
722a, 722b, 722c, 722d, 722e, 97 Conveyance
724a, 724b, 99,911 Washing and re encrypt
725a, 725b, 910 New parts and unit
726a, 726b, 912 A ** (raw) product and ** (raw) parts
733 2nd Demolition Information
734 1012 Judgment to the 3rd classification
735 3rd Judgment Result
736 Candidate for 2nd Recycling -- Member
737 2nd Reuse Object -- Member
738, 1008a, 1008b, and 1013 a 2nd reuse [of the 2nd recycling] non-object -- member
739 Spallation, Trituration, and Judgment
740 Spallation and Trituration / Judgment Information
741 4th Judgment Result
742 Candidate for 3rd Recycling -- Member
98 OA-Equipment Maker, OA-Equipment Maker Production Works, the OA-Equipment Maker Appointed Place
1004 Quality of the Material A
1004a and 1004b sheathing which consists of the quality of the material A -- member
1004c The chassis section parts which consist of the quality of the material A
1005 Quality of the Material B
1005a and 1005b sheathing which consists of the quality of the material B -- member
1006 Quality of the Material C
1006a and 1006b sheathing which consists of the quality of the material C -- member
1006c The chassis section parts which consist of the quality of the material C
1007 Quality of the Material D
1007a, 1007b Chassis section parts which consist of the quality of the material D

[Translation done.]